

## CLAIMS

Claims 1 - 3 were cancelled without prejudice in an earlier filed office action.

4. <sup>Amended</sup>  
(Unchanged) A method for optimizing a network's configuration,  
2 comprising the steps of:  
collecting pilot strength measurements for each base station included in  
4 said network;  
saving said pilot strength measurements in a database, wherein said pilot  
6 strength measurements are saved regardless of the measurement value;  
requesting a majority of said saved pilot strength measurements from said  
8 database;  
compiling said pilot strength measurements for said each base station;  
10 saving compiled pilot strength messages in a database; and  
modifying the transmission characteristics of said each base station in  
12 accordance with said compiled pilot strength measurements.

5. (Unchanged) The method in accordance with claim 4, further  
2 comprising the step of using said compiled pilot strength measurements to  
simulate a cellular network.

6. (Unchanged) The method in accordance with claim 4, wherein  
2 compiling said pilot strength measurements comprises the steps of:  
determining an average energy for said pilot strength measurements for  
4 said each base station;  
determining a maximum energy for a one of said pilot strength  
6 measurements for said each base station; and

determining a minimum energy for a one of said pilot strength  
8 measurements for said each base station.

7. (Unchanged) The method in accordance with claim 6, further  
2 comprising the steps of:

analyzing the data compiled for said each base station to determine if said  
4 data indicates that a reliable communication between a mobile station and said  
each base station may be maintained;

6 if a reliable communication with said mobile station cannot be  
maintained by at least one of said each base station, then:

8 determining if said at least one of said each base station is in  
a neighbor list of said mobile station; and

10 communicating to said mobile station to remove said at least one of said  
each base station from said neighbor list.

C2  
Cmt.  
2 8. (Amended) The method in accordance with claim 4, further  
comprising [wherein] modifying the transmission characteristics of [said]  
4 at least one of said each base station [comprises] by changing the location  
of said at least one of said each base station.

2 9. (Amended) The method in accordance with claim 4, further  
comprising [wherein] modifying the transmission characteristics of [said]  
4 at least one of said each base station [comprises] by adjusting the spatial  
characteristics of an antenna used to transmit a signal from said at least  
one of said each base station.

Sub  
D+  
2 10. (Amended) A method to optimize a network's configuration,  
comprising the steps of:

C2  
Cmld

setting a set of parameters of a cellular network;  
4 operating said cellular network for a predetermined interval;  
[measuring] compiling strengths of pilot signals received at a mobile  
6 station and caused by said operating, said compilation resulting in a pilot  
strength message;  
communicating [a] said pilot signal strength message from said mobile  
station to another station [regardless of the strength of pilot];  
10 saving data from said received pilot signal strength messages during said  
predetermined interval[, said messages collected and saved regardless of said  
12 pilot signal strength]; and  
revising said set of parameters in accordance with said data [from  
14 received pilot strength measurement messages].

[Please add the following new claims:]

C3  
Cmld

11. (New) An apparatus for optimizing a wireless communication  
2 network's configuration, comprising:  
means for collecting pilot strength measurements for each base station  
4 included in the network;  
means for saving the pilot strength measurements to a database, wherein  
6 the pilot strength measurements are saved regardless of the measurement value;  
a means for requesting a majority of the saved pilot strength  
8 measurements from the database;  
a means for compiling the pilot strength measurements for each base  
10 station; and  
a means for modifying the transmission characteristics of each base station  
12 in accordance with the compiled pilot strength measurements

12. (New) The apparatus in accordance with claim 11, wherein the  
2 means for compiling the pilot strength measurements further comprises:

means for determining an average energy for the pilot strength  
4 measurements for said each base station, a maximum energy for a one of the  
pilot strength measurements for each base station, and a minimum energy for a  
6 one of the pilot strength measurements for each base station.

13. (New) The apparatus in accordance with claim 12, wherein the  
2 means for compiling the pilot strength measurements further comprises:

means for analyzing the data compiled for each base station to determine  
4 if the data indicates that a reliable communication between a mobile station and  
each base station may be maintained;

6 if a reliable communication with mobile station cannot be maintained by  
at least one of the each base station, then determining if the at least one of the  
8 each base station is in a neighbor list of the mobile station.

14. (New) The apparatus in accordance with claim 13, further  
2 comprising:

a means for communicating to said mobile station to remove the at least  
4 one of the each base station from the neighbor list.

15. (New) The apparatus in accordance with claim 14,  
2 further comprising a means for modifying the transmission characteristics of at  
least one of said each base station by adjusting the spatial characteristics of an  
4 antenna used to transmit a signal from the at least one of the each base station.

16. (New) A apparatus to optimize a network's configuration,  
2 comprising:

means for setting a set of parameters of a cellular network, wherein the  
4 network is operated for a predetermined interval;

means for measuring strengths of pilot signals received at a mobile station  
6 included in the network configuration;

means for communicating a pilot signal strength message from the mobile  
8 station to another station;

means for saving data from the received pilot signal strength messages  
10 during the predetermined interval, the messages collected and saved regardless  
of the pilot signal strength; and

12 means for revising the set of parameters in accordance with the data from  
received pilot strength measurement messages.

17. (New) An apparatus for optimizing a wireless communication  
2 network's configuration, comprising:

a signal processing device for collecting pilot strength measurements for  
4 each base station included in the network;

a storage device communicatively connected to the signal processing  
6 device and used to save the pilot strength measurements, wherein the pilot  
strength measurements are saved regardless of the measurement value;

8 wherein the signal processing device can request a majority of the saved  
pilot strength measurements from the database when desired, compile the pilot  
10 strength measurements for each base station, and cooperate in modifying the  
transmission characteristics of each base station in accordance with the compiled  
12 pilot strength measurements.

18. (New) The apparatus in accordance with claim 17, wherein the  
2 signal processing device further determines an average energy for the pilot  
strength measurements for each base station, a maximum energy for a one of the  
4 pilot strength measurements for each base station, and a minimum energy for a  
one of the pilot strength measurements for each base station.

C3  
Cmt.

19. (New) The apparatus in accordance with claim 18, wherein the  
2 signal processing device analyzes the data compiled for each base station to  
determine if the data indicates that a reliable communication between a mobile  
4 station and each base station may be maintained,  
and if a reliable communication with mobile station cannot be maintained  
6 by at least one of the each base station,  
then determining if the at least one of the each base station is in a neighbor  
8 list of the mobile station.

20. (New) The apparatus in accordance with claim 19, further  
2 comprising a transmitter coupled to the signal processing device and used to  
communicate to the mobile station a command to remove the at least one of the  
4 each base station from the neighbor list.

21. (New) The apparatus in accordance with claim 20, further  
2 comprising:  
an antenna coupled to the transmitter and used to transmit a signal  
4 from the at least one of the base stations, wherein the transmission characteristics  
of the at least one of the base stations is adjusted by changing the spatial  
6 characteristics of the antenna.

22. (New) An apparatus to optimize a network's configuration,  
2 comprising:  
a signal processing unit used to establish a set of parameters for a cellular  
4 network, wherein the cellular network is operated for a predetermined interval;  
a measuring unit communicatively coupled to the signal processing unit  
6 used to measure the strengths of pilot signals received at a mobile station  
included in the cellular network configuration;